

# Educational Expenditure and Human Capital Development in West Africa, the Challenge to Developing Countries

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It has been established in literature that education contributes majorly to human capital development, societal development and prospective tool in boosting the performance of the labour force, it is also a strong base for effective and efficient performance of world economies (UN, 2003). Also, many authors had linked the role of human capital – through education – in economic development (World Bank, 2003; Anyanwu, 1996, 1998), promoting economic growth (Levine and Renelt, 1992; Mankiw et al., 1992; Anyanwu, 1998); promoting income redistribution and poverty reduction (Ravallion and Chen, 1997; Sen, 1999; and Schultz, 2002) and other aspect of the economy to mention but few.

Moreover, government educational spending, which is a tool in enhancing human capital development no doubt had been on the increase in West African countries and other African countries at large (Rajkumar and Swaroop 2008). Different educational programme and policies had also been enacted to boost the performance of the sector. Some empirical findings also yield support that government expenditure has improved education enrolment rate in the Middle East and other middle income countries. But in spite the noticeable increase in education expenditure in West African countries, its impact in building strong workforce or human capital development in the region is still questionable (Schultz, 1999; Moja, 2000 Bloom, Canning and Chan, 2006).

Firstly, West African countries continue to experience different barriers that hamper the development and improvement on the infrastructural facilities in building strong educational system (Bloom, Canning and Chan 2006; Gebremichael and Jackson, 2006). It is of great concern that West African countries still face the problem of deteriorated classrooms and inadequate teaching facilities like learning desk, well equipped classrooms, poor water system, poor medical care in schools and other infrastructural decay in most of the schools (Adedeji and Olanian, 2011). The state of deteriorating educational facilities in Nigeria, for instance, has led to approximately 62 percent of primary schools without classrooms and desk, and out of which 20 percent of this have no access to classrooms at all. It has also been shown that about 94 percent of public primary school in Nigeria lack proper medical facilities in school and approximately 92 percent have no access to good water system in spite of huge

government expenditure to this sector (Morgan, Atkin, Adedeji and Sieve, 2016).

Senegal, Niger and Benin are other case of poor and deteriorating education system. The attendance rate in Senegalese schools was shown to vary widely between the urban and the rural areas. The primary school enrolment rate in Dakar – Senegal headquarters – was given as 93.6 percent, while the primary school enrolment of the rural areas was given as 10 percent. The rate of drop out of student in Senegal was as high as 50 percent in spite of the huge expenditure made on the educational sector. The United Nations Educational, Scientific and Cultural Organization's (UNESCO) reported that Senegal remain at the bottom among the list of countries in Africa with high drop out of students (Maertens and Swinnen, 2009). With average enrolment rate and about 50 percent of this population completing the academic cycle placed Senegal among the worst case of education attainment in Africa (De Stefano, Lynd, and Thornton 2009). Furthermore, it has been shown that school student in Senegal do not stay in school due to inadequate class teachers (Michaelowa 2001). Most of the teachers in Senegal are employed based on volunteering agreement, and are later retained as school teachers with high positions without adequate training in classroom instruction and management. It was also recorded that the inadequate teachers leads to low standard of education in the country. There has been low training, teachers development, seminars and other programme that could enhance the performance of school teachers due to lack of funding, even when funds are provided, there is improper channeling of funds to realize the target purpose due to corruption.

More also, Ghanaian educational system has not also show any improvement as female enrolment rate tends to be low and the rate of drop out among trend upward. In 2017, female enrolment rate in Ghana was 52.9 percent and out of which only 17.5 percent made it through their education cycle. Ghanaian educational system still face complex barrier that impedes the development of educational system ranging from overcrowded classrooms, inadequate infrastructural facilities, inadequate learning material. Report also indicated that more than two out of five who entered primary school in 2010 have low chance of reaching the final grade (United Nations, 2017).

It was further shown that public schools are poorly funded with high rate of inefficient teachers. Majority of the schools in the rural areas lack teaching aids and most of the times stay without classrooms (Morgan, Atkin, Adedeji and Sieve, 2016).

On the bureaucratic, West African countries' government do not have a well structural system that favours the development of the education in the region (Chambers, 2014). There are cases of poor funding of schools, high rate of corruption, and snail-speed progress in developing policies that will promote the educational sector (Svensson, 2005; Moss, Pettersson, Gelandar and Van de Walle, 2006). Bureaucratic bottle-neck in West African countries made access to education to be associated with wealth, as children of the high class – the wealthy class – have access to quality education which most of the time is achieved abroad, than the children of the poor (Sachs, 2008). The children of the poor in West African countries were approximated to be three times more likely to abandon school compared to the children of the rich (Deininger, 2003). This was linked to factors ranging from the inability to meet the cost of education, the distance in travelling to schools and high opportunity cost of losing child labor in subsistence-oriented rural communities.

Government expenditure has also created target discrimination. It is obvious that West African countries do not make adequate provision for the disabled and this group is often denied education, as there are lack of specialist, lack of access and cultural stigmas in the education system and these further exacerbates the arguments of the impact of government expenditure on the educational sector. The deterioration state of education in this region makes young women to face the cultural norms of gender-based violence, teenage pregnancy, early marriage, discriminatory education laws and practices that deprive millions of young West African women from education (Ombati and Mokuia 2012).

Even though, there have been mild increases in government spending on education in West African countries, nevertheless, there is imbalance between the social outcomes and the little budgetary allocations made in this sector. Level of illiteracy tends to increase in this region more than other region of the world. School enrolment have not maintain a sustainable increase as Nigeria for instance recorded a decline in the net primary school enrolment from 67% to 58% between 2004 and 2010 (WDI, 2004). In terms of the net primary school enrolment, Nigeria had the worst education outcome in the world, while Ghana recorded the highest decline in net primary enrollment from 65% in 2000 to 60% in 2001 (World Bank, 2017).

Thus, West African regions remain far behind other developing countries and the level of progress is not sufficient enough to guarantee that all pupils will be able to complete their primary schooling in the nearest future.

## THEORETICAL LITERATURE

### *Peacock and Wiseman Theory of Public Expenditure*

Wiseman and Peacock in their study of public spending in United Kingdom from 1890-1955 initiated a theory dealing with the growth of public spending. They argued that government expenditure changes like fashion to accommodate special needs and does not increase in a smooth and continuous way; this is because there exist some social or other needs which gives rise to need for increase in public spending which is greater than the public revenue. Based on their study of public spending in England, Peacock and Wiseman drew out the most important shaft of light about the nature of public spending growth in England (Okeke, 2014). In 1967, Peacock and Wiseman proposed that increase in public spending occurs in a different way that Wagner theorized. They choose the political suggestions over the organic state where the government is supposed to spend more money and tax less and the masses clamor for ever rising expenditure on social services. It lays emphasis on the continuous occurrence of abnormal structures that result to sizable adjustment in public spending and revenue.

### *Human capital investment theory*

In 1975, Becker developed the human capital investment theory. This theory concludes that the more an economy invests in human capital, the greater the economic outputs. However, this theory seems very difficult to prove and contradicts the past knowledge on the determinants of economic outputs. This is because the strength of every economy was determined by tangible physical assets such as land. Tangible assets may not be as vital as human capital investment in this modern era. Becker agrees with the modern human capital theory on the basis that all human behavior is built on the economic self-interest of individuals operating within freely competitive markets and so concludes market discrimination decreases the real income of those that discriminate as well as those against discrimination. He argued that people who seek for high quantity and quality education are mostly high income earners. Becker also asserts that educational quality can be bought with money and this may affect current performance of education and future demand for education. Most students who work while studying are from poor background who finds it difficult to pay for their education. Some are mandated to partake in various businesses so as to contribute to family finances (Dustmann and Micklewright, 2001). These activities will likely to have negative effect on such student's performance and academic endeavours.

## EMPIRICAL LITERATURE

In the African context, Ogbu and Gallagher (1991) examined the link between education outcomes and the composition of public education spending in five African countries. The study revealed that enrolment rates are significantly affected by the composition of public education spending. Using panel data

for African countries from 1990 to 2002, Anyanwu and Erhijakpor (2007) investigate the effect of government education expenditure on enrolment at the primary and secondary school levels, with particular reference to SANE countries (South Africa, Algeria, Nigeria and Egypt). The findings provided support to the assertion that government expenditure on education positively impacts on enrolment at the primary and secondary levels; though they found stronger evidence for secondary enrolments.

Iyer (2009) attempted to investigate how public education expenditure affects primary education outcomes in 115 districts across three states in India. Public spending on education proxies includes per capita income, student-teacher ratio, and ratio of government to private primary schools. The study revealed that primary educational spending have insignificant impact on education outcome when compared with private primary schools which was found to have better outcomes. However, the study suggested that the policy makers and governments should sort for other means of improving the quality of primary education and determining more improved ways of achieving equity in the distribution of educational funds.

Agustín et al (2013) used panel data to investigate the factors affecting public expenditure on education with regard to OECD countries from 1996 to 2009. The result of this study found economic, social and democratic development of a country to be among the major factors that has positive effect on the public expenditure on education.

Urhie (2014) adopted instrumental variable two stage least squares estimation technique in examining the effects of the components of public education expenditure on both education attainment and economic growth in Nigeria from 1970 to 2010. The result revealed that while there exist negative and significant relationship between recurrent expenditure and education, capital expenditure has a positive significant impact on education. On the other hand, the result revealed that recurrent expenditure have a positive and significant impact on economic growth while capital expenditure had a negative impact.

An individual's welfare who grew up in a poor environment may likely be poor in the long run. These effect has been a major concern in some economies around the globe and thus, in quest to curtail the poverty level, governments have intervened overtime through education spending in order for the poor to have access to education. This is to ensure that the poor to an extent would have equal opportunities with the rich. Marisa and Iñigo (2014) carried out a study to examine whether these longrun effects could actually be reduced by public spending on education. The result of their study revealed that public spending in primary education has more effect on poverty alleviation of individual especially those whose parents had little or no education experience.

Using a panel data simultaneous equation model, Bhakta (2014) carried out a study on impact of public spending on

health and education of children from 20 states in India over a period of 2003 to 2011. The result suggested that health and education had a positive impact on enrolment rates but negatively related to dropout rates. Specifically, government spending on primary education was discovered to have greater impact on enrolment as compared to dropout rate.

With the aid of panel data covering from 2009 to 2013, Ude and Ekesiobi (2014) carried out an empirical investigation on public education spending and education outcomes in the 36 states of Nigeria. The study used fixed effects and random effects models which show that education expenditure by the states have a significant impact on total primary enrolment, total secondary enrolment and adult literacy enrolment in Nigeria. Their result also show that spending on education by the states have significant impact on total tertiary enrolment in Nigeria applying only fixed effect.

Adowaa (2014) used cross-sectional data from 175 public primary schools and 13 local education offices in assessing the significance of public spending management for primary education outcomes in public schools in two South African provinces (Gauteng and North West). The study reveal that government delay in fund allocation to schools are related with rates of which students drop out in Grade 5. However, he found out that poor education outcomes is not actually connected with misappropriation of education funds and so concluded on the basis of his findings that public spending and total resource wealth have significant impact on education outcomes.

Due to the inadequate allocation of resources to education sector over the years, Oriakhi and Ameh (2014) evaluated the impact of the government spending on the development of the education sector and literacy level in Nigeria. The study was carried out by employing a time series linear forecasting model and the use of co integration and granger causality test mechanism. The result found that government education spending is statistically significant and have long run relationship with the education sector. Okeke (2014) further employed vector error correction mechanism in investigating the impact of public health and education expenditure on their sectoral outcomes in Nigeria over the period of 1980 to 2010. The result indicated that while public health spending on health brings about a significant decrease of under-5 mortality rate, government education spending was found to have no significant impact on total school enrollment.

Using a sample of 20 developing African countries, Carsamer and Ekyem (2015) carried out an investigation on how the level of governments' educational expenditure affects primary and secondary school enrollment from 1998-2012. They found that there exist positive relationship between government education expenditure and enrollment rate in primary and secondary school levels. From their result also, political instabilities has negative relationship with school enrollment while educational reforms is positively related to school enrollment. Since outcomes depend on the ability of

resources to reach their target destination, the efficiency of government expenditure is considered as an essential tool in every economy. Similarly, having known that countries can achieve better outcomes with the same level of spending or even below with efficiency, Koku (2015) employed panel data for 15 ECOWAS countries from 2002 to 2011 in estimating the efficiency of government spending in health and education. The result show that the effect of public expenditure on primary enrolment is positive but not significant.

Johnson and Wasiu (2016) examined the effect of government financing on the growth of education in Nigeria from 1981 to 2013 using the ordinary least square (OLS) multiple regression econometric technique. They found out that impact of both capital and recurrent expenditure has negative relationship with the growth of education in Nigeria. Also, Olufunmilayo (2016) adopted OLS technique and multiple regression model to investigate the impact of public spending on enrolments in primary and secondary education in Nigeria over the period of 1981 to 2013. It was discovered from the result that government expenditure had a positive significant relationship with primary school enrollment but a negative relationship with secondary school enrollment. However, the study suggested that government should encourage enrollments into secondary schools.

Charles et al (2016) examined the effects of government expenditure on the education outcome in Nigeria from 1970 – 2013 using augmented dickey fuller (ADF) unit root test and ordinary least square (OLS) technique. This study discovered that public education spending has a positive and significant effect on education outcome in Nigeria. It also found that public health expenditure and urban population growth have positive effects on education outcome but are non significant in determining education outcome.

Salwa (2017) adopted the threshold regression approach for cross-countries data (Hansen, 1996 and 2000) in analyzing the existence of the differences in the growth effect of public education expenditure with regards to the level of educational

quality in each of the countries. This study found that there exist a threshold effect on the relationship between education spending and the performance of the economy.

*The rich versus the poor. Who benefits more from public education spending?*

On the other hand, in an attempt to determine the extent at which poor has benefited in the rise in government expenditure and the factors that influence the participation of the poor in the public school system, Mawuli and Alistair (2011) examined incidence of public education subsidies in Ghana through the standard benefit incidence methods and the willingness-to-pay method using a nested multinomial logit model. The result showed that the poor benefits more at the lower level of education but not at a proportional rate when compared with the rich. Also from the result, price and income are the major factors that influence the participation of the poor in the public school system. This is because of the user fee which increases with the increase in the level of education. Against the background of ever increasing public education spending in Ghana, Gaddah and Munro (2011) attempted to investigate the exact beneficiary in this type of public spending. This study was carried through the adoption of the standard benefit incidence methods and the willingness-to-pay method using a nested multinomial logit model. The result of the study revealed that both the poor and rich accesses the pre-primary and primary education easily while secondary and tertiary education is mostly accessed by the rich and so concluded that the rich benefits more than the poor in public education spending in Nigeria. Wika and widodo (2012) analyzed the distribution of government expenditure on education in Indonesia in 2001 by employing survey data mechanism and benefit incidence analysis to determine the beneficiary on the government education spending. The result found that total government spending on education favours the middle class and rich people more than the poor ones in the country. Thus, the study revealed that expenditure on secondary and higher education are regressive and pro rich.